KOZLOV, V.P.; TISHCHENKO, D.V.

Presence of anthracene in neutral oils of gas-producer settled tar obtained in the gasification of conifer wood. Zhur.prikl. khim. 37 no. 5:1168 My '64. (MIRA 17:7)

1. Leningradskaya lesotekhnicheskaya akademiya imeni S.M. Kirova.

SOROKIN, I.S.; TISHCHENKO, D.V.

Water-soluble novolaks of pyrocatechol in the acid liquor of the gazification of coniferous wood. Gidroliz. i lesokhim.prom. 17 no.1:15-17 '64. (MIRA 17:4)

1. Leningradskaya lesotekhnicheskaya akademiya imeni S.M.Kirova.

TISHCHENKO, D.V.; KISLITSYN, A.N.; ZAGARMISTR, O.S.; Prinimali uchastiye: VAPYSHEVA, K.M., mladshiy nauchnyy sotrudnik; MITRYAKOVA, L.Kh.; SEMENOVA, A.A., mladshiy nauchnyy sotrudnik

Using phenylic acids of wood tar pitch as raw material for obtaining viscosity reducers. Sbor.trud.TSNILKHI no.14:46-52 '61. (MIRA 16:4)

1. Starshiy tekhnik laboratorii drevesnykh smol TSentral'nogo nauchno-issledovatel'skogo i proyektnogo instituta lesokhimicheskoy promyshlennosti (for Mitryakova). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut burovoy tekhniki (for Semenova).

(Wood tar) (Phenols)
(Chemical tests and reagents)

ZARUBIN, M.Ya.; TISHCHENKO, D.V.

Soda cooking of spruce wood with the addition of phenols. Zhur.-prikl.khim. 35 no.12:2724-2729 D '62. (MIRA 16:5)
(Spruce) (Lignin) (Phenols)

TISHCHENKO, D.V., prof.

Resins obtained by wood thermolysis and their application.
[Trudy] NTO bum.i der.prom. no.8:257-266 '59. (MIRA 16:2)
(Guns and resins) (Wood—Chemistry)

TISHCHENKO, D.V., prof.

Acid condensation of lignin. [Trudy] NTO bum.i der.prom. no.8:40-51 '59. (MIRA 16:2)

(Lignin)
(Condensation products (Chemistry))

SOROKIN, I.S.; TISHCHENKO, D.V.

Isolation of levoglucosan from soluble tar. Gidroliz.i lesokhim. prom. 15 no.3:8-9 '62. (MIRA 15:5)

1. Leningradskaya lesotekhnicheskaya akademiya im. S.M.Kirova.
(Levoglucosan) (Wood tar)

TISHCHENKO, D.V.; KOVALEV, V.Ye.

Preparation of new herbicides. Gidroliz. i lesokhim. prom. 14 no.6:30-31 '61. (MIRA 14:9)

1. Lesotekhnicheskaya akademiya imeni S.M. Kirova.
(Herbicides)

TISHCHENKO, D.V.; NOSOVA, N.I.; VODZINSKAYA, A.N.; GORDON, L.V.

Industrial pyrocatechol from the acid liquor produced in the gasification of wood. Sbor.trud. TSNILKHI no.12:104-112 '57. (MIRA 13:10)
(Pyrocatechol) (Wood distillation)

TISHCHENKO, D.V.; LOZOVSKAYA, Ye.N.

Alkali cooking of spruce wood with salts added. Zhur. prikl. khim.
34 no. 12:2791-2792 D '61. (MIRA 15:1)
(Woodpulp)

ZHIGALOV, Yu.V.; TISHCHENKO, D.V.

Sulfur of thiolignins. Zhur.prikl.khim. 35 no.1:147-153 Ja '62.
(MIRA 15:1)

1. Lesotekhnicheskaya akademiya imeni S.M.Kirova.
(Thiolignin) (Sulfur—Analysis)

KISLITSYN, A.N.; TISHCHENKO, D.V.; ADEL', I.B.; ZAGARMISTR, O.S.

Drilling fluid viscosity reducers from wood tar pitch. Izv. vys. ucheb. zav.; neft' i gaz 3 no.8:21-26 '60. (MIRA 14:4)

1. Lesotekhnicheskaya akademiya i Vsesoyuznyy nauchno-issledovatel'skiy institut burovoy tekhniki.
(Oil well drilling fluids) (Viscosity)

TISHCHENKO, D.V.; NOSOVA, N.I.

Composition of the phenolic fraction of wood gasification tar. Sbor. trud. TSNILKHI no.12:64-85 '57. (MIRA 13:10)

(Wood tar) (Phenols)

TISHCHENKO, D.V.; ALFEROVA, L.A.; RYKACHEV, P.I.

New antiseptic based on wood-tar phenols. Sbor.trud. TSNIILKHI no.13:60-66 '59. (MIRA 13:10)

(Antiseptics) (Phenols)

NOSOVA, N.I.; TISHCHENKO, D.V.

Phenols from tars of wood thermolysis. Gidroliz.i lesokhim. prom. 13 no.6:1-3 '60. (MIRA 13:9)

1. TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.

(Phenols) (Wood tar)

KROMINA, L.V.; TISHCHENKO, D.V.

Dyestuffs in acid water. Gidroliz.i lesokhim.prom. 13 no.4:7-9 '60.
(MIRA 13:7)

1. Leningradskaya lesotekhnicheskaya akademiya.
(Wood tar) (Dyes and dyeing)

KROMINA, L.V.; TISHCHENKO, D.V.

Characteristics of tars from the thermolysis of birch wood in the combustion chamber of the V.V. Pomerantsev gas producer system. Gidroliz i lesokhim. prom. 12 no.5:1-4 '59. (MIRA 12:10)

1.Leningradskaya lesotekhnicheskaya akademiya.
(Wood tar)

5(3) [illegible]

AUTHOR: Tishchenko, D.V.

TITLE: The Ozonization of Lignin (Ozonirovaniye lignina)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol XXXII, Nr [illegible], pp [illegible] (USSR)

ABSTRACT: Ozonolysis of unsaturated and aromatic compounds is a method for determining their structure. The ozonolysis of lignin produces aldehyde, ketone and acid groups as well as hydrogen peroxide, because the water of the solution decomposes the forming ozonide. If fir lignin is ozonized in ethylacetate, an ozonide with a yield of 180% of the lignin weight is obtained which corresponds to a triozonide with a molecular weight of 180. Its solution has no optical activity. In the ultraviolet spectrum the absorption band of 2,8[illegible] Å is absent. At the decomposition with [illegible] permanganate about two g-mole [illegible] from one structural unit with [illegible]. This proves that [illegible] li-

Card 1/2

gated lignins completely consist of aromatic compounds. The ozonization of fir wood produced 45% of pure lignin triozonide which was dissolved in the ethylacetate solution and later a triozonide with an admixture of carbohydrate-free substances in the ratio 1 : 1. The molecular weight of these substances is less than 12,000-15,000. The triozonide of natural fir lignin shows no optical activity.
There are 11 references, 2 of which are Soviet, 3 American, 3 Swedish, 2 German and 1 English.

SUBMITTED: December 16, 1958

TISHCHENKO, D.V.

Letter to the editor. Zhur.ob.khim. 27 no.10:2907-2908 O '57.
(MIRA 11:4)

(Camphene)

TISHCHENKO, D.V.; FEDORISHCHEV, T.I.

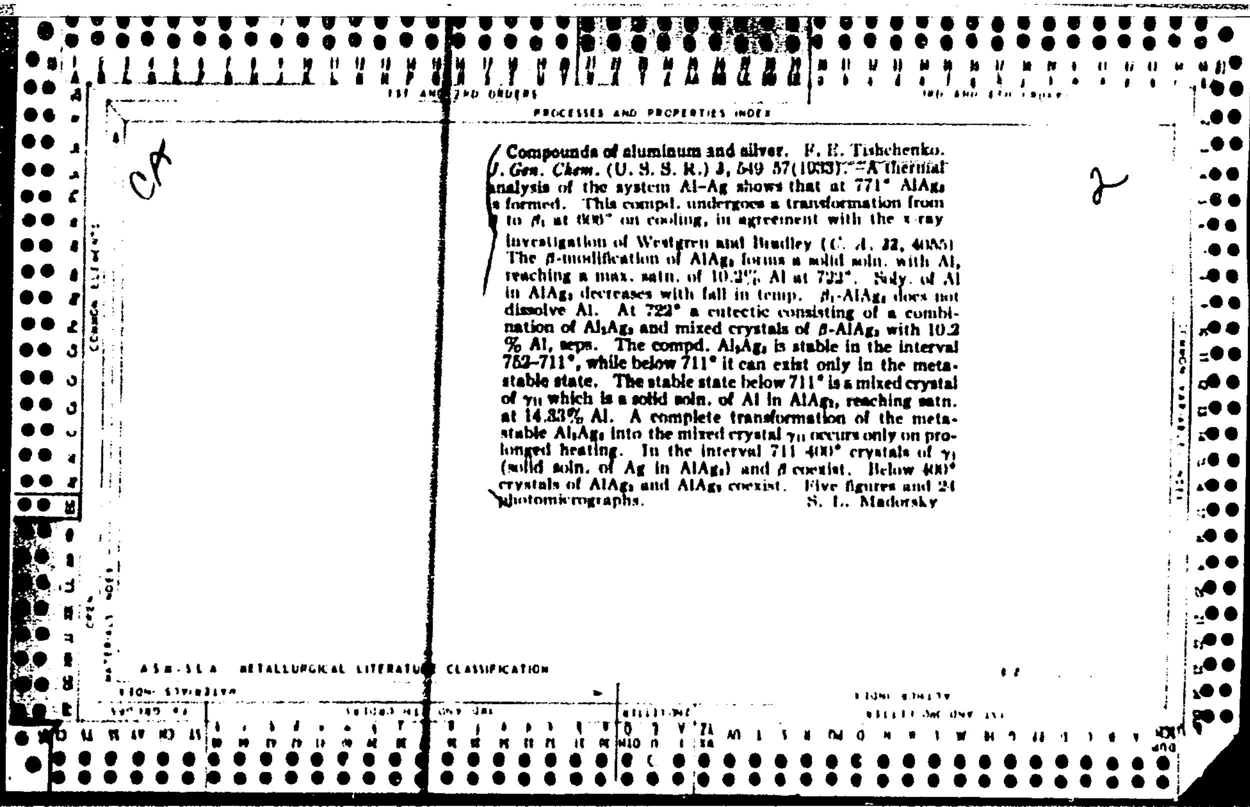
Processing soluble gas generator tars. Gidroliz. i lesokhim. prom.
11 no.4:8-11 '58. (MIRA 11:6)

1. Leningradskaya lesotekhnicheskaya akademiya.
(Wood tar)

KATSNEL'SON, Boris Davidovich; KORCHUNOV, Yuriy Nikolayevich; LIVEROVSKIY, Aleksey Alekseyevich; POMERANTSEV, Viktor Vladimirovich, doktor tekhn. nauk, prof.; [illegible], Kseniya Dmitriyevna; TIMCHENKO, Dmitriy Vyacheslavovich; [illegible], Elio Markovich; SHMULEVSKAYA, Esfir' Ionovna; POMERANTSEV, V.V., red.; ZHITNIKOVA, O.S., tekhn. red.

[Layer methods of the use of fuel as a source of power and chemicals] Sloevye metody energokhimicheskogo ispol'zovaniia topliva. [By] B.D. Katsnel'son i dr. Moskva, Gosenergoizdat, 1962. 186 p. (MIRA 15:9)

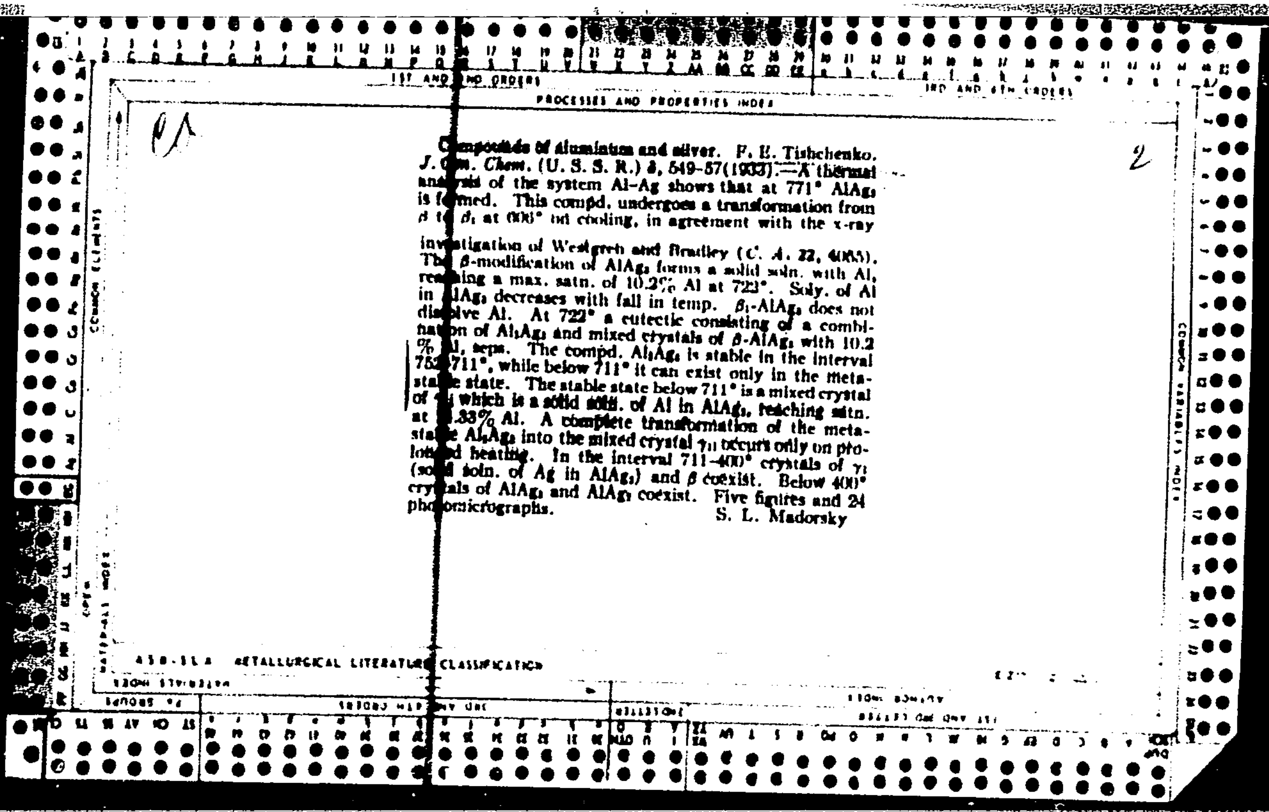
(Fuel) (Chemicals)


1ST AND 2ND ORDERS
PROCESSES AND PROPERTIES INDEX
3RD AND 4TH ORDERS
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

2

Compounds of aluminum and silver. F. E. Tishchenko. *J. Gen. Chem.* (U. S. S. R.) 3, 649-57(1933).—A thermal analysis of the system Al–Ag shows that at 771° $AlAg_3$ s formed. This compd. undergoes a transformation from to β_1 at 600° on cooling, in agreement with the x-ray investigation of Westgren and Bradley (*C. A.* 22, 4055). The β-modification of $AlAg_3$ forms a solid soln. with Al, reaching a max. satn. of 10.2% Al at 722°. Suly. of Al in $AlAg_3$ decreases with fall in temp. β_1-$AlAg_3$ does not dissolve Al. At 722° a eutectic consisting of a combination of Al_3Ag_2 and mixed crystals of β-$AlAg_3$ with 10.2% Al, seps. The compd. Al_3Ag_2 is stable in the interval 752–711°, while below 711° it can exist only in the metastable state. The stable state below 711° is a mixed crystal of γ_{II} which is a solid soln. of Al in $AlAg_2$, reaching satn. at 14.83% Al. A complete transformation of the metastable Al_3Ag_2 into the mixed crystal γ_{II} occurs only on prolonged heating. In the interval 711–400° crystals of γ_I (solid soln. of Ag in $AlAg_2$) and β coexist. Below 400° crystals of $AlAg_2$ and $AlAg_3$ coexist. Five figures and 24 photomicrographs. S. L. Madorsky

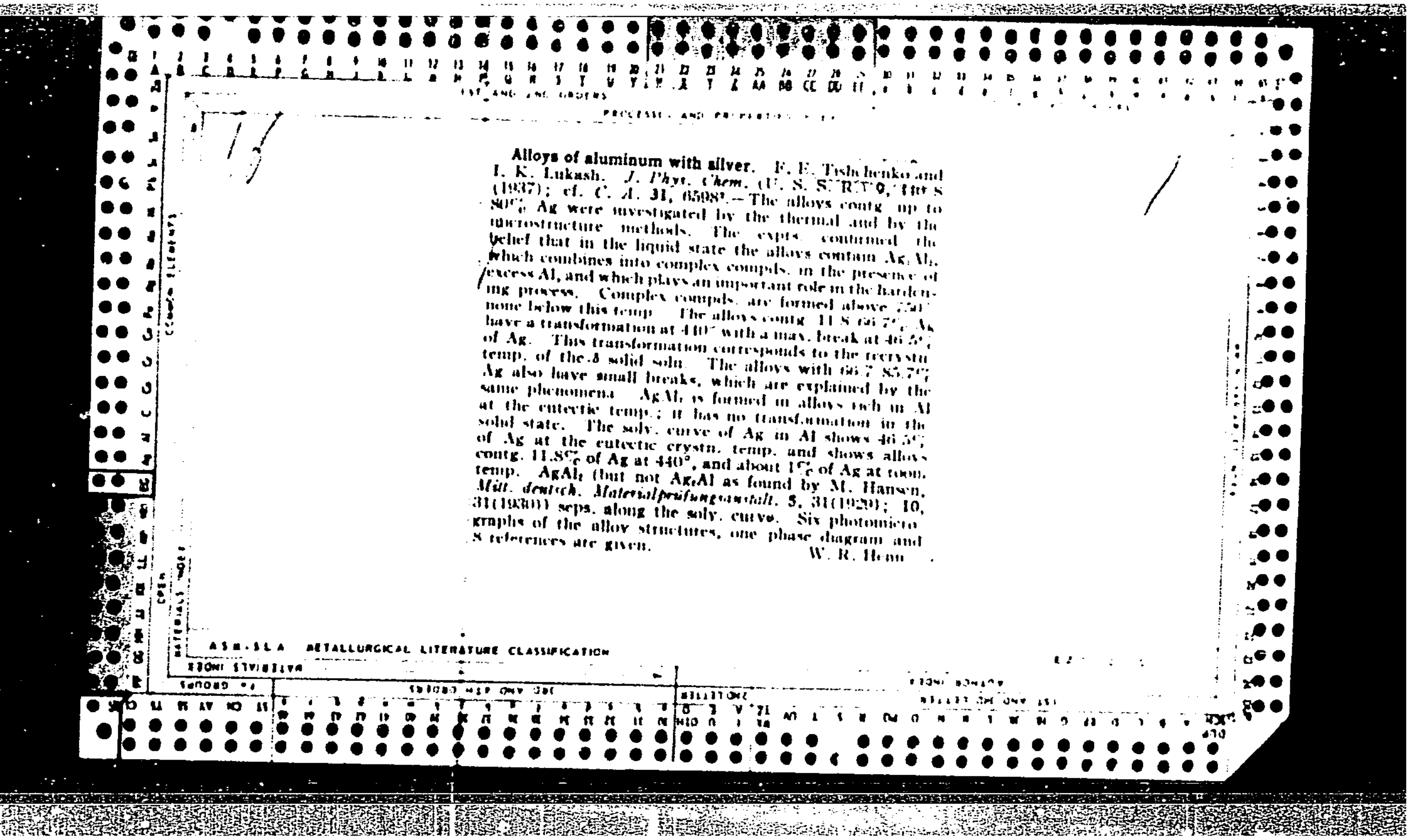

1ST AND 2ND ORDERS
PROCESSES AND PROPERTIES INDEX
3RD AND 4TH ORDERS
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

ρA

2

Compounds of aluminium and silver. F. E. Tishchenko. *J. Gen. Chem.* (U. S. S. R.) 3, 549-57(1933).—A thermal analysis of the system Al-Ag shows that at 771° $AlAg_3$ is formed. This compd. undergoes a transformation from β to β_1 at 600° on cooling, in agreement with the x-ray investigation of Westgren and Bradley (*C. A.* 22, 4065). The β-modification of $AlAg_3$ forms a solid soln. with Al, reaching a max. satn. of 10.2% Al at 723°. Soly. of Al in $AlAg_3$ decreases with fall in temp. β_1-$AlAg_3$ does not dissolve Al. At 722° a eutectic consisting of a combination of Al_2Ag_3 and mixed crystals of β-$AlAg_3$ with 10.2 % Al, seps. The compd. Al_2Ag_3 is stable in the interval 752-711°, while below 711° it can exist only in the metastable state. The stable state below 711° is a mixed crystal of [illegible] which is a solid soln. of Al in $AlAg_3$, reaching satn. at [illegible].33% Al. A complete transformation of the metastable Al_2Ag_3 into the mixed crystal γ_1 occurs only on prolonged heating. In the interval 711-400° crystals of γ_1 (solid soln. of Ag in $AlAg_3$) and β coexist. Below 400° crystals of $AlAg_3$ and $AlAg_3$ coexist. Five figures and 24 photomicrographs.

S. L. Madorsky



PROCESSES AND PROPERTIES INDEX

Alloys of aluminum with silver. F. E. Tishchenko and I. K. Lukash. *J. Phys. Chem.* (U. S. S. R.) 9, [illegible] (1937); cf. *C. A.* **31**, 6508⁹.—The alloys contg. up to 80% Ag were investigated by the thermal and by the microstructure methods. The expts. confirmed the belief that in the liquid state the alloys contain Ag_2Al_2 which combines into complex compds. in the presence of excess Al, and which plays an important role in the hardening process. Complex compds. are formed above 750° none below this temp. The alloys contg. 11.8-66.7% Ag have a transformation at 440° with a max. break at 46.5% of Ag. This transformation corresponds to the recrystn temp. of the δ solid soln. The alloys with 66.7-85.7% Ag also have small breaks, which are explained by the same phenomena. $AgAl_2$ is formed in alloys rich in Al at the eutectic temp.; it has no transformation in the solid state. The soly. curve of Ag in Al shows 46.5% of Ag at the eutectic crystn. temp. and shows alloys contg. 11.8% of Ag at 440°, and about 1% of Ag at room temp. $AgAl_2$ (but not Ag_3Al as found by M. Hansen, *Mitt. deutsch. Materialprüfungsanstalt.* 5, 31(1929); 10, 31(1930)) seps. along the soly. curve. Six photomicrographs of the alloy structures, one phase diagram and 8 references are given.

W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

Ca

9

Thermal investigation of the aluminum-silver alloys in the region of β-phase. F. R. Tishchenko. *J. Gen. Chem.* (U. S. S. R.) 9, 729-31(1939); cf. *C. A.* 33, 6773. The investigation of the Al-Ag alloys, contg. 5-8.3% of Al (Si 0.16, Fe 0.09% and Cu traces), confirmed the correctness of the diagram obtained by Hoar and Rowntree (*C. A.* 25, 2402), and disclosed the constriction of the liquid and solid phase curves at 7.7-7.4% of Al (by wt.). The eutectic decompn. of the β-phase at 606° and the formation of $AlAg_3$ at 450° were also observed. A. A. P.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MA

Properties of Alloys

*Thermal Analysis of Aluminium–Silver Alloys in the Region of the γ-Phase. F. E. Trehubenko (Zhur. Obshchei Khimii (J. Gen. Chem.), 1939, 9, (8), [illegible]–731). [In Russian.] Alloys containing 5–8.3 wt.-% aluminium were investigated by thermal analysis, a number of cooling and heating curves being obtained immediately after alloying. The diagram of Hoss and Rosenhain (J. Inst. Metals, 1931, 45, 119) was confirmed. In addition, an inflection on both the liquidus and solidus between 7.7 and 7.8% aluminium was observed. Arrests on the heating curves indicated the formation of $AlAg_2$ in the γ solid solution at 456° C.—A. R.

9

1942

PROCESSES AND PROPERTIES INDEX

ca

9

Aluminum-silver alloys rich in aluminum. F. I. Tishchenko and I. K. Lukash. *J. Phys. Chem.* (U. S. S. R.) 9, 605-10(1937).—For Ag-Al alloys, the sp. vol. and the corrosive properties (soly.) are inversely proportional to the hardness. At 440° the alloy with 11.8% Ag (Al[illegible]Ag) is the limiting concn. of Ag in Al for a single-phase system. The phys.-chem. properties of Al-rich alloys independently of thermal treatment reflect the dependence of the formation of the solid δ phase on the state of the alloy in the liquid phase. The Brinell hardness passes through several maxima and minima with varying concn.

F. H. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

TISHCHENKO, G.A.

Device for visual measurement of the quality of ground steel surfaces. Trudy Sem.po kach.poverkh. no.4:199-203 '59.

(Surfaces (Technology)--Testing) (MIRA 13:6)
(Optical instruments)

TISHCHENKO, G. A.

PHASE I BOOK EXPLOITATION SOV/3688

Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya. Seminar po kachestvu poverkhnosti

Kachestvo poverkhnosti detaley mashin, sbornik 4. Tekhnologicheskiye faktory obrabotki. Metrologiya i pribory. Ekspluatatsionnyye svoystva poverkhnostnogo sloya (Surface Quality of Machine Parts, Collection of Articles, No. 4. Processing Factors in Machining. Metrology and Instruments. Operational Properties of the Surface Layer) Moscow, Izd-vo AN SSSR, 1959. 291 p. (Series: Its: Trudy) Errata slip inserted. 3,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya.

Resp. Ed.: P.Ye. D'yachenko, Professor; Ed. of Publishing House: G.B. Gorshkov; Tech. Ed.: T.P. Polenova.

PURPOSE: This collection of articles is intended for technical personnel concerned with the quality of surface finishes of machine parts.

COVERAGE: This collection of articles deals with problems of surface roughness and the effect of surface roughness on the wear and strength of machine parts. Among the topics discussed are the development of international standards for surface roughness, the effect of cutting feeds and cutting-tool vibration on the surface roughness of machined parts, the effect of lay direction on the wear of plane friction surfaces, methods and instruments for measuring surface roughness, and the processing of profilograms of finished surfaces. No personalities are mentioned. References follow several of the articles.

Chukmasov, S.F. Quality and Wear of Friction Surfaces 41

Dolgolenko, P.V. Effect of Lay Direction on the Wear of Plane Friction Pairs 49

Shteynberg, I.S. Use of the Cutting Process for Increasing the Fatigue Strength of Machine Parts 55

Chatynyan, L.A., P.Ye. D'yachenko, and O.Ye. Kestner. Solid Lubricants in Dry Friction 79

Papshev, D.D. Effect of Surface-Layer Quality on Fatigue Strength 85

Kas'yan, M.V. Some Problems of the Formation of the Surface Layer 93

Lur'ye, G.B. Theory of the Working Cycle in Grinding as the Basis for Improving Machining Quality 98

Mikhaylov, A.A. Effect of Process Factors in Grinding on the Surface Quality of Chrome-Plated Parts 116

Markov, A.I. Roughness of Machined Surfaces in Precision and Coarse Turning of Steel 127

Dobychina, A.P. Instrument for Determining the Surface Roughness of Cutting Tools 137

Podopenova, N.A. Thermal Phenomena in the Grinding of Quench-Hardened Steel 142

Grozinskaya Z.P. Surface Hardening of Metals by Ball Burnishing 158

Nisnevich, A.I. On the Problem of Surface Roughness of Machined Tractor-Engine Parts 164

Davydov, B.S. Simple Surface-Roughness Indicator 168

Kartashev, A.P. Photoelectric Method of Recording Surface Profiles [Profilograph] 171

Kleymenov, Yu.V. "Kalibr-VEI" Induction-Type, Profilograph-Profilometer 177

Boyarov, A.I. Electric Circuit of the "Kalibr-VEI" Profilograph-Profilometer 184

Truten', V.A. MMI-2 Opticomechanical Profilograph 193

Tishchenko, G.A. "Visual" Device for Measuring the Roughness of Ground Surfaces 199

TISHCHENKO, G.A., inzh.

[redacted]

Analyzing foreign standards for artificial lighting of industrial enterprises. Svetotekhnika 4 no.10:28-32 O '58. (MIRA 11:10)
(Factories--Lighting--Standards)

51-4-3-9/30

AUTHORS: Cherkasov, A.S., Tishchenko, G.A. and Voldaykina, K.G.

TITLE: Photoluminescent Characteristics and Relative Intensities of Scintillations of Plastic Scintillators Containing Anthracene Derivatives.
(O fotolyuminestsentnykh kharakteristikakh i otnositel'nykh intensivnostyakh stsintillyatsiy plasticheskikh stsintillyatorov s proizvodnymi antratsena.)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol.IV, Nr.3, pp. 344-347 (USSR)

ABSTRACT: Anthracene was one of the first substances used to make plastic scintillators (Ref.1). The authors studied scintillators which contained various derivatives of anthracene. These scintillators were prepared by polymerization of styrene in which the studied substance (2% by weight) was dissolved. The relative magnitudes of scintillation pulses under the action of γ-rays and the fluorescence spectra, quantum yields of fluorescence and durations of the excited state of the scintillators were studied. Samples were prepared and their scintillation efficiency was measured at the Institute of High-Molecular Compounds of the Academy of Sciences

Card 1/4

51-4-3-9/30

Photoluminescent Characteristics and Relative Intensities of Scintillations of Plastic Scintillators Containing Anthracene Derivatives.

of the USSR in M.M. Koton's laboratory. Fluorescence was excited by mercury lines of about 365 mμ wavelength. Quantum yields were found from the ratios of areas bounded by fluorescence spectra. Durations of the excited state were measured by means of a fluorometer as described in Ref.3. The relative magnitudes of scintillation pulses obtained using various derivatives of anthracene are given in the table on p.345. For derivatives with alkyl, aryl, methoxy-, acetoxy- and acetylamino-groups in meso-positions of the anthracene nucleus or alkyl substituents in α- and β-positions of anthracene an increase of the pulse heights is observed compared with plastic scintillators containing anthracene itself. The most effective are diaryl derivatives of anthracene, particularly 9,10-diphenyl and 9,10-di-(n-anisyl)-anthracene (their efficiency is of the same order as that of scintillators with terphenyl). Introduction of methyl groups into phenyl rings or into m- and n-positions of diphenylanthracene lowers the

Card 2/4

51-4-3-9/30

--- Photoluminescent Characteristics and Relative Intensities of Scintillations of Plastic Scintillators Containing Anthracene Derivatives.

relative pulse height, compared with the most effective compounds. From the relative quantum yields and the known value of the absolute quantum yield of fluorescence of anthracene dissolved in benzene, the absolute quantum yields of fluorescence of scintillators with anthracene derivatives were calculated. In almost all compounds studied here the absolute quantum yields are high, and in the case of diaryl derivatives they are close to unity (see table on p.345). The authors conclude that of the studied anthracene derivatives the best scintillators can be obtained using mesoaryl derivatives of anthracene, whose scintillations are 2.5-3 times more intense than anthracene scintillations. The same scintillators have also the shortest duration of the excited state (of the order of 10^{-8} sec). The high relative intensity of scintillations of mescaryl derivatives of anthracene is due to their high quantum yields of fluorescence, nearness of the fluorescence

Card 3/4

51-4-3-9/30

Photoluminescent Characteristics and Relative Intensities of Scintillations of Plastic Scintillators Containing Anthracene Derivatives.

maximum to the maximum of photomultiplier intensity and good transparency for their own fluorescence. There is 1 table, 1 figure and 4 references, of which 2 are Soviet, 1 American and 1 English.

ASSOCIATION: State Optics Institute imeni S.I. Vavilov. (Gosudarstvennyy opticheskiy institut im. S.I. Vavilova.)

SUBMITTED: June 21, 1957.

1. Scintillation counters--Materials--Properties 2. Anthracenes --Derivatives--Applications

Card 4/4

51-4-5-11/29

AUTHORS: Tischchenko, G.A., Sveshnikov, B. Ya. and Cherkasov, A.S.

TITLE: On the Dependence of the Fluorescence Spectra of Meso-Derivatives of Anthracene on the Concentration of the Solute (O zavisimosti spektrov fluorestsentsii rastvorov mezozameshchennykh antratsena ot kontsentratsii rastvorennogo veshchestva)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol IV, Nr 5, pp 631-636 (USSR)

ABSTRACT: Förster and Kasper (Ref 1) discovered that in concentrated solutions of pyrene a considerable deformation of the luminescence spectra occurs, which is not accompanied by changes in the absorption spectra and which cannot be explained by re-absorption of the short-wavelength portion of the emitted spectrum. Förster and Kasper explained the observed effect by emission by dimers formed as a result of collisions of excited molecules with non-excited ones, which is superimposed on the emission of monomers. A similar effect was observed by the present authors in the study of concentration quenching of fluorescence of meso-derivatives of anthracene. The authors studied benzene and acetone solutions of 9-methyl- , 9-n-propyl- , 9-n-butyl- , 9-phenyl- , 9,10-diphenyl-

Card 1/3

and 9,10-dimethylanthracene prepared by A.S. Cherkasov, T.M. Bember and K.G. Voldaykina. The method of study was the same as in Ref 3. The apparatus consisted of a mercury lamp SVDSh-250, and a monochromator with a diffraction grating and a photomultiplier. The observations were made on the side of excitation with the 366 mμ line. Figs 1 and 2 show the fluorescence spectra of benzene solutions of 9-n-propylanthracene and 9,10-diphenylanthracene. For other alkyl-derivatives of anthracene similar results were obtained to those for 9-n-propylanthracene. Fig 3 shows the fluorescence spectrum of anthracene in benzene. Fig 4 gives the concentration quenching of fluorescence of anthracene and its derivatives dissolved in benzene. Table 1 gives the duration of fluorescence of benzene solutions of 9,10-diphenylanthracene and of pyrene as a function of the concentration of the solute. A new long-wavelength fluorescence band was found in the spectra of concentrated solutions of the above alkyl-derivatives of anthracene in benzene. This new band exhibits comparatively long-lived emission in contrast to the fundamental fluorescence band whose intensity decreases with the solute concentration. The absorption spectra of the substances

51-4-5-11/29

On the Dependence of the Fluorescence Spectra of Meso-Derivatives of Anthracene on the Concentration of the Solute

studied were found to be independent of the solute concentration. Following Förster and Kasper (Ref 1) the authors suggest that the observed effects are due to dimerization of excited molecules. There are 4 figures, 2 tables and 6 references, 4 of which are Soviet, 1 German and 1 American.

ASSOCIATION: Gosudarstvennyy opticheskiy institut im. S.I. Vavilova (State Optical Institute imeni S.I. Vavilov)

SUBMITTED: June 28, 1957

Card 3/3

1. Anthracene - Meso derivatives - Fluorescence spectra 2. Molecules - Excitation 3. Molecules - Collision

PISACHENKO, G.A.

BONCH-BRUYEVICH, A.M.; TISHCHENKO, G.A.; FEOFILOV, P.P.

Duration of the luminescence of color centers in ionic crystals.
Izv. AN SSSR. Ser. fiz. 21 no.4:590 Ap '57. (MLRA 10:8)
(Luminescence) (Phosphors)

FISHCHENKO [illegible]

48-4-40/40

Tishchenko, G A.

SUBJECT: USSR/Luminescence

AUTHORS: Bonch-Bruyevich A. M., Tishchenko G.A. and Feofilov P.P.

TITLE: Luminescence Duration of Color Centers in Ionic Crystals (Dlitel'nost' lyuminestsentsii tsentrov okrashivaniya v ionnykh kristallakh)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1957, Vol 21, #4, p 590 (USSR)

ABSTRACT: The application of a new fluorometer "GOI" possessing a high resolution capacity and relatively high sensitivity to light made it possible to investigate the luminescence duration τ of complex color centers in ionic crystals of LiF; NaF and CaF$_2$. Investigated crystals were colored both photochemically, by means of hard radiation, and in the additive way (CaF$_2$).

In all cases the luminescence duration at room temperature was of the order of 10^{-8} to 10^{-9} sec and did not depend on the mode of coloring, intensity and wavelength of excitation light.

Two types of color centers were observed in LiF crystals subjected to the action of X-rays. They differed in their

Card 1/2

...ench-
...s of
...sorption spectra
...ntration of color
...ilators.

INSTI
PRESEN
SUBMITT
AVAI
Card 2/2

...ary of Congress.

Tischenko, G.A.

[illegible] on the other hand considerably exceed changes of durations, hence, besides extinction due to Brownian motion of [illegible]

MT

TISHCHENKO, G.A.; FEOFILOV, P.P.

Luminescence of color centers in fluorite crystals. Izv. AN SSSR Ser. fiz. 20 no.4:482-487 Ap '56. (MLRA 10:1)
(Luminescence) (Fluorescence)

SVESHNIKOV, B. Ya.; TISHCHENKO, G.A.

Mechanism of concentrated fluorescence quenching of anthracene solutions. Opt.i spektr. 1 no.2:155-160 Je '56. (MLRA 9:11)
(Fluorescence) (Anthracene)

AUTHORS: Kudryashov, P. I., Cherkasov, A. S., Sveshnikov, B. Ya., Tishchenko, G. A.

S/170/59/002/10/010/020
B115/B007

TITLE: Organic Boron - Glycerin Luminophores

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1959, Vol 2, Nr 10, pp 62-64 (USSR)

ABSTRACT: In the investigation of important rules of phosphorescence low-melting boric acid glasses activated with organic substances are used, which, however, have a number of disadvantages for the given purpose (Ref 1). In the present paper, an exceedingly simple method of producing phosphors of high optical quality is described. The fluorescence- and phosphorescence spectra of boric acid- and glycerin luminophores (Fig 1) agree practically with the spectra of other boron-containing phosphors. The main disadvantages of boron-glycerin luminophores are enumerated. There are 1 figure and 4 references, 2 of which are Soviet.

Card 1/1

AREF'YEV, T.I., kand. ekon. nauk; BRASLAVETS, M.Ye., prof., doktor ekon. nauk; BROZGUL', M.M.; VLASOV, N.S., prof., doktor ekon. nauk; DUBROVA, P.F., doktor ekon. nauk; YESAULOV, P.A., kand. sel'khoz. nauk; ZAL'TSMAN, L.M., prof., doktor sel'khoz. nauk; KAL'M, P.A., dotsent, kandidat sel'skokhoz. nauk; KOSTSELETSKIY, N.A., kand. ekon. nauk; KRYLOV, V.S., kand. sel'khoz. nauk; LIBKIND, A.S., dots., kand. ekon. nauk; MAKAROV, N.P., prof., doktor ekon. nauk; OGLOBLIN, Ye.S., kand. sel'khoz. nauk; POLOVENKO, S.I., kand. ekon. nauk; POPOV, S.A., dots., kand. ekon. nauk; SAPIL'NIKOV, N.G., doktor ekon. nauk; TISHCHENKO, G.A., prof., kand. ekon. nauk; TYUTIN, V.A., prof., ~~doktor ekon. nauk~~; YANYUSHKIN, M.F., kand. ekon. nauk; PYLAYEVA, A.P., red.; FREYDMAN, S.M., red.; SOKOLOVA, N.N., tekhn. red.

[Organization of socialist agricultural enterprises] Organizatsiia sotsialisticheskikh sel'skokhoziaistvennykh predpriiatii; kurs lektsii. Moskva, Sel'khozizdat, 1963. 662 p. (MIRA 16:8)

1. Zaveduyushchiy otdelom ekonomiki Vsesoyuznogo nauchno-issledovatel'skogo instituta sakharnoy svekly (for Aref'yev).
2. Odesskiy sel'skokhozyaystvennyy institut (for Braslavets).

(Continued on next card)

AREF'YEV, T.I.—— (continued). Card 2

3. Moskovskaya sel'skokhozyaystvennaya akademiya im. K.A.Timiryazeva (for Vlasov). 4. Zaveduyushchiy otdelom ekonomiki i organizatsii Nauchno-issledovatel'skogo instituta sadovodstva im. I.V.Michurina (for Dubrova). 5. Moskovskiy Gosudarstvennyy universitet im. M.V.Lomonosova (for Zal'tsman, Polovenko). 6. Zaveduyushchiy kafedroy organizatsii sel'skokhozyaystvennogo proizvodstva Leningradskogo sel'skokhozyaystvennogo instituta (for Kal'm). 7. Zaveduyushchiy otdelom ekonomiki Nauchno-issledovatel'skogo instituta ovoshchnogo khozyaystva (for Kostseletskiy). 8. Vsesoyuznyy nauchno-issledovatel'skiy institut ptitsevodstva (for Krylov). 9. Moskovskiy ekonomiko-statisticheskiy institut (for Libkind). 10. Vsesoyuznyy sel'skokhozyaystvenniy institut zaochnogo obrazovaniya (for Makarov). 11. Zaveduyushchiy otdelom ekonomiki Krasnodarskogo nauchno-issledovatel'skogo instituta sel'skogo khozyaystva (for Ogloblin). 12. Kafedra organizatsii sel'skokhozyaystvennogo proizvodstva Leningradskogo sel'skokhozyaystvennogo instituta (for Popov). 13. Zaveduyushchiy kafedroy Sovetskoy ekonomiki Vysshey partiynoy shkoly (for Sapil'nikov). 14. Voronezhskiy sel'skokhozyaystvennyy institut (for Tishchenko). 15. Leningradskiy sel'skokhozyaystvennyy institut (for Tyutin). 16. Direktor Severo-Kavkazskogo filiala Vsesoyuznogo nauchno-issledovatel'skogo instituta ekonomiki sel'skogo khozyaystva (for Yanyushkin).

(Agriculture—Economic aspects)

TISHCHENKO, G.I.

Our collective farm will greet the fortieth anniversary of the Great October with new advances in communal economy. Nauka i pered. op. v sel'khoz.7 no.2:8-11 F '57. (MLRA 10:3)

1. Predsedatel' kolkhoza "Svoi trud", Solotchinskogo rayona, Ryazanskoy oblasti.

(Collective farms)

TISHCHENKO, G.M.

Simple and handy device. Put' i put. khoz. 5 no. 1:43 Ja '61.
(MIRA 14:5)

1. Dorozhnyy master, st. Zima, Vostochno-Sibirskoy dorogi.
(Railroads—Equipment and supplies)

TISHCHENKO, G.M., dorozhnyy master

Lightweight device for removing curves. Put' i put. khoz. no.6:27 Je '59. (MIRA 12:10)

1. PMS -45 stantsiya Irkutsk II.
(Railroads--Equipment and supplies)
(Railroads--Curves and turnouts)

ZINOV'YEVA, Kh.G.; TISHCHENKO, G.N.

Ways of increasing the effectiveness of azotobacterin given to potatoes in the Ukrainian Plesye. Mikrobiol. zhur. 18 no.3:25-29 '56. (MLRA 9:10)

1. Z Institutu mikrobiologii Akademii nauk URSR ta Kiivs'koi s.-g. stantsii VNDISP.

(POLESYE--POTATOES) (AZOTOBACTER)

USSR/Cultivated Plants - Potatoes, Vegetables, Melons. M-5

Abs Jour : Ref Zhur - Biol., No 9, 1958, 39285

Author : Tishchenko, G.N.

Inst : AS UkrSSR; All-Union Institute for the Alcohol Industry.

Title : Obtaining High Potato Yields.

Orig Pub : V sb.: Vopr. razvitiya s. kh. Poles'ya. Kiyev, AN USSR, 1956 (1957), 133-140.

Abstract : Data resulting from experiments of the Kiev Agricultural Station of the All-Union institute of the alcohol industry on means to heighten the yield of potatoes in the Poles'ye of the UkranianSSR is given. The introduction of 40 t/ha of manure and of NPK increased the general yield by 65-96% on the average. The yield of starch increased by 65-88%. The smallest increase of starch was noted in the Ostbote variety. The introduction of potassium chloride diminished

Card 1/2

Country : USSR

J

Category: Soil Science. Cultivation. Improvement.
Erosion

Abs Jour: RZhBiol., No 14, 1958, No 63133

Author : Tishchenko, G.M.
Inst : -
Title : A Study of Soil Cultivation Methods Proposed by
T. S. Mal'tsev

Orig Pub: Kolgopsnik Ukraini, 1957, No 7, 27

Abstract: The most rational method of cultivating woodland soils under spring crops after potatoes is superficial spring ploughing without autumn tilling. It is possible to use disking and spring ploughing of the soil under a young growth of potatoes after

Card : 1/2

TISHCHENKO, G.N.

Effect of cultivation practices on the quality of seed potatoes. Agrobiologiia no. 3:125-128 My-Je '58. (MIRA 11:7)

1. Nemeshayevskaya opytnaya stantsiya Ukrainskogo nauchno-issledovatel'skogo instituta zemledeliya, Kiyevskaya oblast'.
(Seed potatoes)

TISHCHENKO, G.M. [Tyshchenko, H.M]

Effect of silicate bacteria on potato yields. Mikrobiol.zhur. 20 no.3:29-30 '58 (MIRA 11:11)

1. Iz Nemishayevskoy opytnoy stantsii Ukrainskogo nauchno-issledovatel'skogo instituta zemledliya.
(BACTERIA, SILICATE)
(POTATOES)

TISHCHENKO, G.N., nauchnyy sotrudnik; VAGANOVA, A.D., nauchnyy sotrudnik;
KHOPTYUK, A.M., nauchnyy sotrudnik

Do we know enough about silicate bacteria? Zashch.rast.ot
vred. i bol. 4 no.1:33 Ja-F '59. (MIRA 12:2)

1. Nemeshayevskaya opytnaya stantsiya Ukrainskogo nauchno-issledovatel'skogo instituta zemledeliya.
(Bacteria, Silicate)

TISHCHENKO, G. N.

"Electronographic Investigation of Certain Complex Compounds of Bivalent Cobalt and Nickel"
Cand Chem Sci, Inst of Crystallography, Acad Sci USSR, 17 Feb 54, Dissertation
(Vechernyaya Moskva Moscow, 5 Feb 54)

SO: SUM 186, 19 Aug 1954

TISHCHENKO, G.

USSR/Physical Chemistry - Crystals, B-5

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 60841

Author: Vaynshteyn, B. K., Tishchenko, G. N.

Institution: None

Title: Conventional Projections in F- and F^2-Series of Fourier

Original Periodical: Tr. in-ta kristallogr. AN SSSR, 1955, No 11, 68-74

Abstract: Analogously to the fact that evolvement of F-series in accordance with the zone of reflections hk0 yields the projection of the structure, the evolvement of series in accordance with F_{hkl} with fixed l, will yield a conventional projection $\sigma_l(xy) = \int_0^c \rho(xyz)\exp(2\pi ilz/c)dz$. Peaks σ_l due to the presence of exponential factor, which assumes depending upon the concrete symmetry of the structure the form cos or sin, can have a positive as well as a negative sign (or vanish altogether) depending upon z-coordinate

Card 1/2

USSR/Physical Chemistry - Crystals, B-5

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 60841

Abstract: of the atom and corresponding value of cos or sin ($2\pi lz/c$). Characteristics of these projections are illustrated by examples of evolvement of σ_1 and σ_2 for the structure CS_2CoCl_4. Characteristics of conventional projections in F_2-series are analogous.

Card 2/2

TISHCHENKO, G. N.

Category: USSR / Physical Chemistry - Crystals B-5

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 29682

Author : Tishchenko G. N.
Inst : Institute of Crystallography, Academy of Sciences USSR
Title : Electronographic Investigation of the Structure of CsNiCl .

Orig Pub: Tr. In-ta kristallogr. AN SSSR, 1955, No 11, 93-96.

Abstract: Determination of structure was carried out according to electronograms of a polycrystalline specimen secured by crystallization of aqueous solution of CsNiCl at 20-50°. Parameters of hexagonal lattice: a 7.18, c 5.93 A. Z = 2, (calculated) 3.75, F.gr. C6/mmc. Position of atoms was determined by means of geometrical analysis: Ni at 2(a) 000; Cs at 2(d) 1/3, 2/3, 3/4; Cl at 6(h) x, 2x, 1/4. Value of x refined according to projection of distribution of $\varphi_{(xy0)}$ potential, for the plotting of which were utilized 15 independent reflections: $x_{Cl} = 0.156 \pm 0.001$. Correctness of structure confirmed by comparison of experimental and theoretical values of $[\Phi_{hk0}]$. Structure of CsNiCl constitutes an almost

Card : 1/2 -15-

Category: USSR / Physical Chemistry - Crystals B-5

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 29682

ideal hexagonal packing of Cs and Cl; Ni occupies 1/4 of octahedral voids. Ni octahedrons are linked in the chain by means of mutual opposite faces. Infinite chain ions $(NiCl_3)^{n-}$ are linked by Cs^+ ions. Structural type of $LiI.3H_2O$. Interatomic distances (in A): Ni-Cl 2.43, Cl-Cl 3.37, 3.55, 3.75, Cs-Cl 3.59, 3.70. The Ni octahedron is slightly elongated lengthwise of the c axis. This distortion is caused by repulsion of Ni atoms and evidences structural stress.

Card : 2/2

TISHCHENKO, G.N.

USSR/Miscellaneous - Crystallography

Card 1/1 Pub. 22 - 19/49

Authors : Tishchenko, G. N., and Pinsker, Z. G.

Title : "Electrono graphic" determination of the structure of Cs_2CoCl_4

Periodical : Dok. AN SSSR 100/5, 913-916, Feb 11, 1955

Abstract : An account is given of the synthetic formation of tetrachlorocobaltous crystals, Cs_2CoCl_4, special care having been taken in their preparation to prevent them from containing nickel admixtures. The structure of the crystals was then studied with the help of an "electrono graphic" device, the "electronograms" obtained showed a romboid structure of the crystal, which can be characterized by 13 parameters. Six references: 2 German, 2 USA and 2 USSR (1895-1952). Diagrams; illustrations.

Institution : ......

Presented by : Academician A. V. Shubnikov, October 19, 1954

TISHCHENKO, G. N.

ATOVMYAN

PORAY-KOSHITS, Mikhail Aleksandrovich; TISHCHENKO, G. N.; ATOVMJAN, L. O.

"The Crystal Structures of Co, Ni, Cu, Pt-complex Compounds of the MeA_2X_2 type"

a report presented at Symposium of the International Union of Crystallography Leningrad, 21-27 May 1959

SOV/70-4-2-17/36

AUTHORS: Poray-Koshits, M.A. and Tishchenko, G.N.

TITLE: On the Crystal Structures of Cobalt and Copper Dithiocyanopyridinates (O kristallicheskikh strukturakh dirodanodipiridinatov kobal'ta i medi)

PERIODICAL: Kristallografiya, 1959, Vol 4, Nr 2, pp 239-241 (USSR)

ABSTRACT: The compounds $Co(NCS)_2 2Py$ and $Cu(NCS)_2 2Py$ were prepared by breaking down the corresponding tetrapyridinates. Their crystals were acicular with good cleavages into [110] prisms. For the Co compound $n_g > 1.780$; $n_p = 1.700$. No piezoelectricity was detected. The cell dimensions were found to be: Co compound, $a = 9.09 \pm 0.02$ Å, $b = 14.60 \pm 0.03$; $c = 5.66 \pm 0.01$; $\beta = 111^\circ$; $Z = 2$, $d_{obs} = 1.55$, $d_{calc} = 1.58$. Cu compound, $a = 9.17 \pm 0.02$ Å, $b = 14.31 \pm 0.03$; $c = 5.65 \pm 0.02$; $\beta = 108^\circ$; $Z = 2$; $d_{obs} = 1.54$, $d_{calc} = 1.59$. The extinctions indicated face centering and the group C2/m was established by

Card1/3

the structure analysis. Patterson projections were made and, with packing considerations, gave the atomic coordinates: Co (0,0,0); S (0.264,0,0.599); C (0.202, 0, 0.360); N (0.159, 0, 0.187); N_{Py} (0,0.145,0); C_I (0.046, 0.195, 0.175); C_{II} (0.046, 0.294, 0.175); C_{III} (0, 0.345, 0) . It is proposed to make sections in the (010) and $(20\bar{3})$ planes.

The Co compound belongs to the α-series of CoA_2X_2 -type compounds. Each Co atom is in contact, in the (010) plane, with 2 N atoms and 2 S atoms of the $NC\bar{S}$ groups. N atoms from the 2 molecules of pyridine make the coordination number of the Co up to 6. The NCS' ions form bridges joining one Co to another. The bond lengths are $Co - N_{CS} = 2.10$ Å; $Co - N_{Py} = 2.12$ Å; Co - S = 2.60 Å. Intermolecular distances correspond to the sums of the van der Waals radii. The $S_{CN} - H_{Py}$ distance is about 2.87 Å .

SOV/70-4-2-17/36

On the Crystal Structures of Cobalt and Copper Dithiocyanopyridinates

There are 2 figures and 5 references, 2 of which are Soviet and 2 German, 1 English.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova (Moscow State University imeni M.V. Lomonosov)

SUBMITTED: December 17, 1958

Card 3/3

PORAY-KOSHITS, M.A.; ATOVMYAN, L.O.; TISHCHENKO, G.N.

Crystal structure of isomorphic cobalt and zinc dihalodipyridinates. (concerning the nature of the isomerism of cobalt compounds having the composition CoA_2X_2). Zhur. strukt. khim. 1 no.3:337-341 S-O '60. (MIRA 14:1)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova AN SSSR.
(Cobalt compounds) (Zinc compounds)

PASHINKIN, A.S.; TISHCHENKO, G.N.; KORNEYEVA, I.V.; RYZHENKO, B.N.

Polymorphism of some zinc and cadmium chalcogenides. Kristallografiia 5 no.2:261-267 Mr-Ap '60. (MIRA 13:9)

1. Moskovskiy gosudarstvennyy univeristet im. M.V.Lomonosova.
(Zinc chalcogenide) (Cadmium chalcogenide)

ZORKIY, P.M.; KORYTNYY, Ye.F.; TISHCHENKO, G.N.

Crystal chemistry data on zinc, cobalt, nickel, and copper salicylalbutyliminates. Zhur.strukt.khim. 2 no.5:609-612 S-O '61. (MIRA 14:11)

1. Moskovskiy gosudarstvonnyy universitet imeni Lomonosova.
(Organometallic compounds)
(Crystallography)

TISHCHENKO, G.N.; ZORKIY, P.M.; PORAY-KOSHITS, M.A.

Electron diffraction study of the crystal structure of nickel and copper inner complex compounds of salicylalimine and its derivatives. Zhur.strukt.khim. 2 no.4:434-444 Jl-Ag '61.
(MIRA 14:9)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Nickel compounds) (Copper compounds)
(Salicylaldehide)

TISHCHENKO, G.N.; ZYKALOVA, K.A.

Two crystalline modifications of gramicidin C hydrochloride. Kristallografiia 8 no.4:561-569 Jl-Ag '63. (MIRA 16:9)

1. Institut kristallografii AN SSSR.
(Gramicidin crystals)

BOL'SHAKOV, G.P.; TISHCHENKO, G.V.

Investigating cold extrusion lubricants. [Nauch. trudy] ENIKMASha 8:119-129 '64. (MIRA 18:3)

L 16606-65 EWG(j)/EWP(e)/EWT(m)/EPF(c)/EWA(d)/EPR/EWP(j)/T/EWP(t)/EWP(k)/EWP(b)
Pc-4/Pf-4/Pr-4/Ps-4 [illegible] /WW/MW/DJ/RM/WH

ACCESSION NR. AT4048373 S/0000/64/000/008/0119/0129

AUTHOR: Bol'shakov, G. P.; Tishchenko, G. V.

TITLE: Investigation of lubricants for cold pressing

SOURCE: Moscow. Eksperimental'ny*y nauchno-issledovatel'skiy institut kuznechno-pressovogo mashinostroyeniya. Nauchny*ye trudy*, no. 8, 1964. Novoye v kuznechno-shtampovochnom proizvodstve (Latest developments in the forging industry), 119-129

TOPIC TAGS: cold pressing, steel pressing, pressing lubricant, phosphate film polyvinylbutyral film, graphite, friction coefficient, oxalate film

ABSTRACT: The paper describes a study of the properties of lubricants for cold pressing of steel parts and their optimal compositions. Phosphate films together with surface active substances are the most widely used for such lubricants. Investigations of phosphate films were therefore made in order to determine how the conditions under which phosphating is carried out and the thickness of the film influence the pressing process. The experiments showed that the most effective lubricants for cold pressing of steel are phosphate films with a medium-crystal structure having a thickness of not less than 12 microns. When the effect of various accelerators on the rate of phosphating was investigated it was found that the highest rate of phosphating was obtained using sodium fluoride in a

Card 1/3

L 16606-65
ACCESSION NR: AT4048353

3

concentration of 5 grams/liter. The films were produced by immersion in suitable baths for 10 minutes. The rate of phosphating could be increased still further by increasing the concentration of phosphating agents; the time for obtaining a film of a suitable thickness could then be decreased to about 4 minutes. Use of nitrites as accelerators was found to be ineffective. A suitable instrument for determining the friction coefficient under specific pressures up to 2500 x 10^3 kg/cm^2 and temperatures of the contact surfaces up to 420K is described. It was established that a sharp decrease in the friction coefficient occurs in the temperature interval [illegible] K. [illegible] properties are shown by soap-treated phosphate films. Other films can be used effectively in some cases; thus, oxalate films can be used for blanks with a thin layer of scale and for small deformations (pickling, cold and hot washing can then be eliminated); polyvinylbutyral coatings containing graphite can be used [illegible] [illegible] has: 12 figures, [illegible] tables and 2 [illegible]

ASSOCIATION: Eksperimental'nyy nauchno-issledovatel'skiy institut kuznechno-pressovogo mashinostroyeniya, Moscow (Experimental Scientific Research Institute of Forging Machinery)

Card 2/3

L 16606-65
ACCESSION NR: AT4048353

SUBMITTED: 00 ENCL: 00 SUB CODE: FP, MM

NO REF SOV: 003 OTHER: 007

Card 3/3

TISHCHENKO, I.

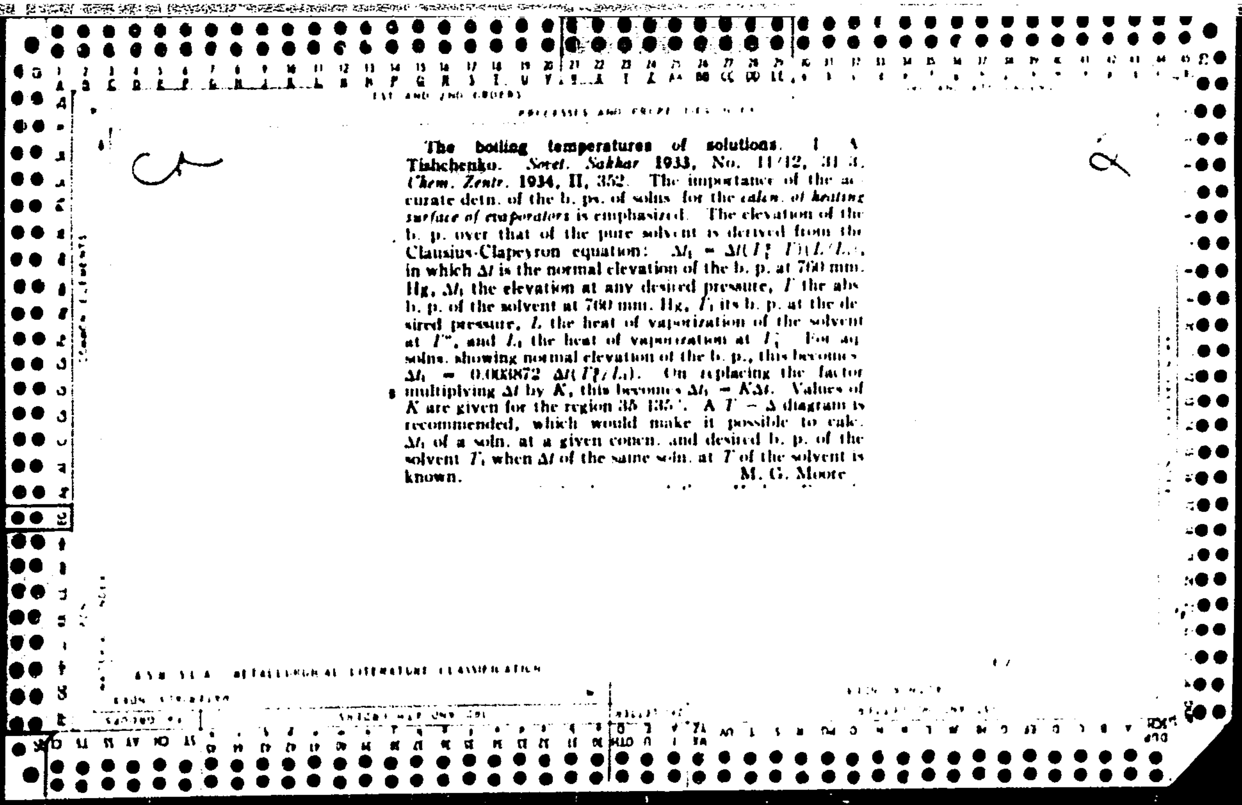
The village has been transformed. Sel'. stroi. 12 no.11:12-14 N '57.
(MIRA 10:11)

1. Predsedatel' kolkhoza "40 let Oktyabrya" Apollonskogo rayona Stavropol'skogo kraya.
(Collective farms)

TISHCHENKO, I.

Training automobile drivers under normal operating conditions. Avt.transp. 38 no.8:46 Ag '60.
(MIRA 13:8)

(Automobile drivers)



PROCESSES AND PROPERTIES INDEX

The boiling temperatures of solutions. I. A. Tishchenko. *Sovet. Sakhar* 1933, No. 11/12, 31–3; *Chem. Zentr.* 1934, II, 352. The importance of the accurate detn. of the b. ps. of solns. for the *calcn. of heating surface of evaporators* is emphasized. The elevation of the b. p. over that of the pure solvent is derived from the Clausius-Clapeyron equation: $\Delta t_1 = \Delta t(T_1^2/T^2)(L/L_1)$, in which Δt is the normal elevation of the b. p. at 760 mm. Hg, Δt_1 the elevation at any desired pressure, T the abs. b. p. of the solvent at 760 mm. Hg, T_1 its b. p. at the desired pressure, L the heat of vaporization of the solvent at $T°$, and L_1 the heat of vaporization at $T_1°$. For aq. solns. showing normal elevation of the b. p., this becomes $\Delta t_1 = 0.003872\ \Delta t(T_1^2/L_1)$. On replacing the factor multiplying Δt by K, this becomes $\Delta t_1 = K\Delta t$. Values of K are given for the region 35–135°. A $T - \Delta$ diagram is recommended, which would make it possible to calc. Δt_1 of a soln. at a given concn. and desired b. p. of the solvent T_1 when Δt of the same soln. at T of the solvent is known.

M. G. Moore

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

CA

28

A new process in the beet sugar industry. I. A. Tishchenko, A. I. Vostokov and I. P. Lepeshkin. *Sotsialist. Rekonstruktsiya i Nauka* **1936**, No. 6, 158.—The diffusion juice is frozen to a sludge and the snow-like mass is centrifuged. The ice is used for cooling the limed molasses, as in the Fremley process, pptg. 90% of the sugar in the form of a saccharate. This saccharate is used for clarifying the juice which had previously been concentrated by freezing.
B. V. Svartzberg

COMMON ELEMENTS

COMMON VARIABLES INDEX

OPEN

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

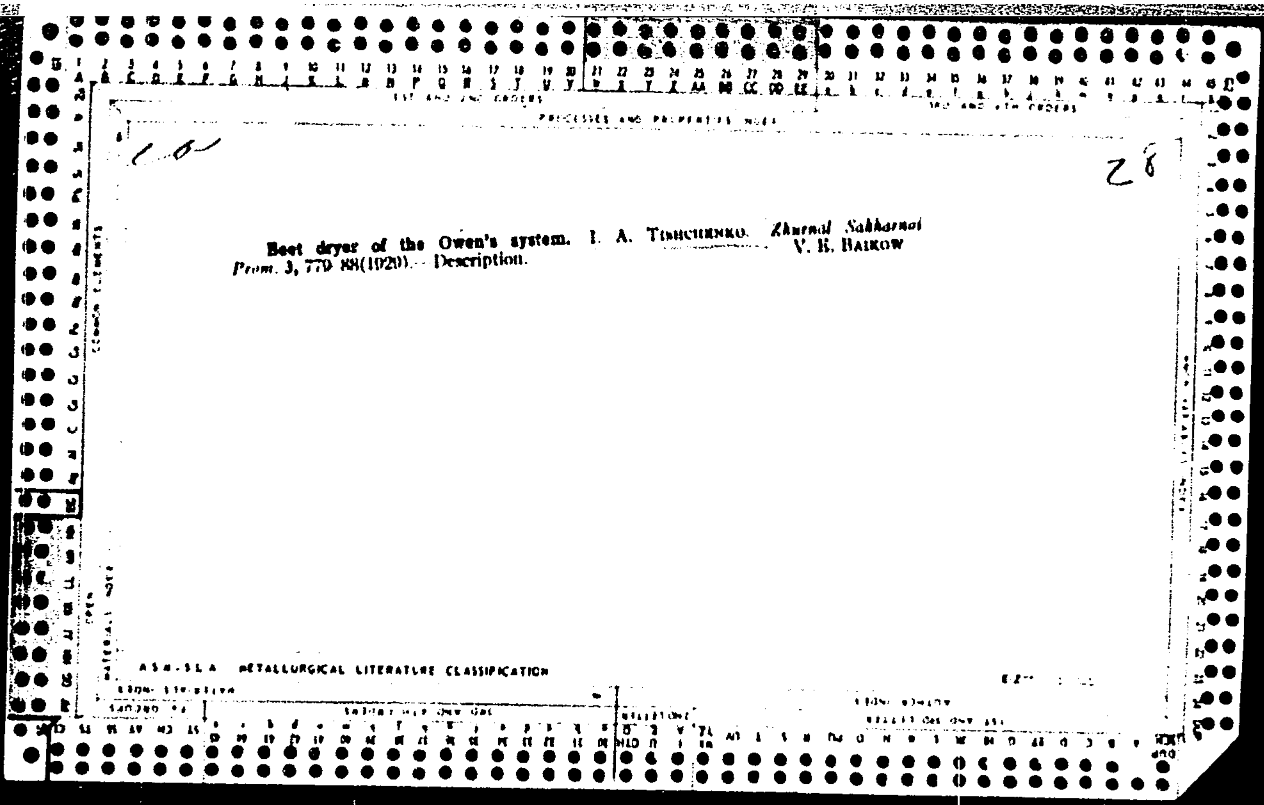
MATERIALS INDEX

3RD AND 4TH ORDERS

2ND LETTER

AUTHOR INDEX

1ST AND 2ND LETTER



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

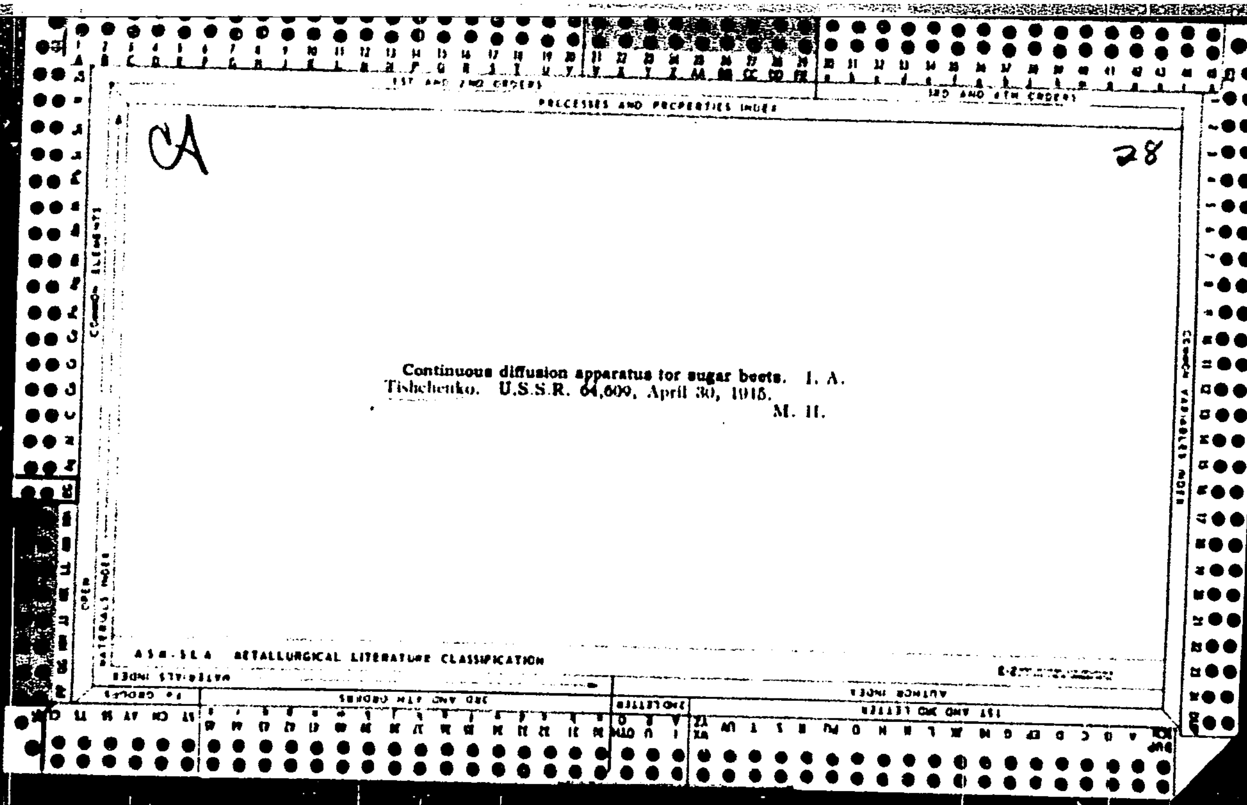
3RD AND 4TH ORDERS

1.0

28

Beet dryer of the Owen's system. I. A. Tishchenko. *Zhurnal Sakharnoi Prom.* 3, 779-88(1929).—Description. V. B. Baikow

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

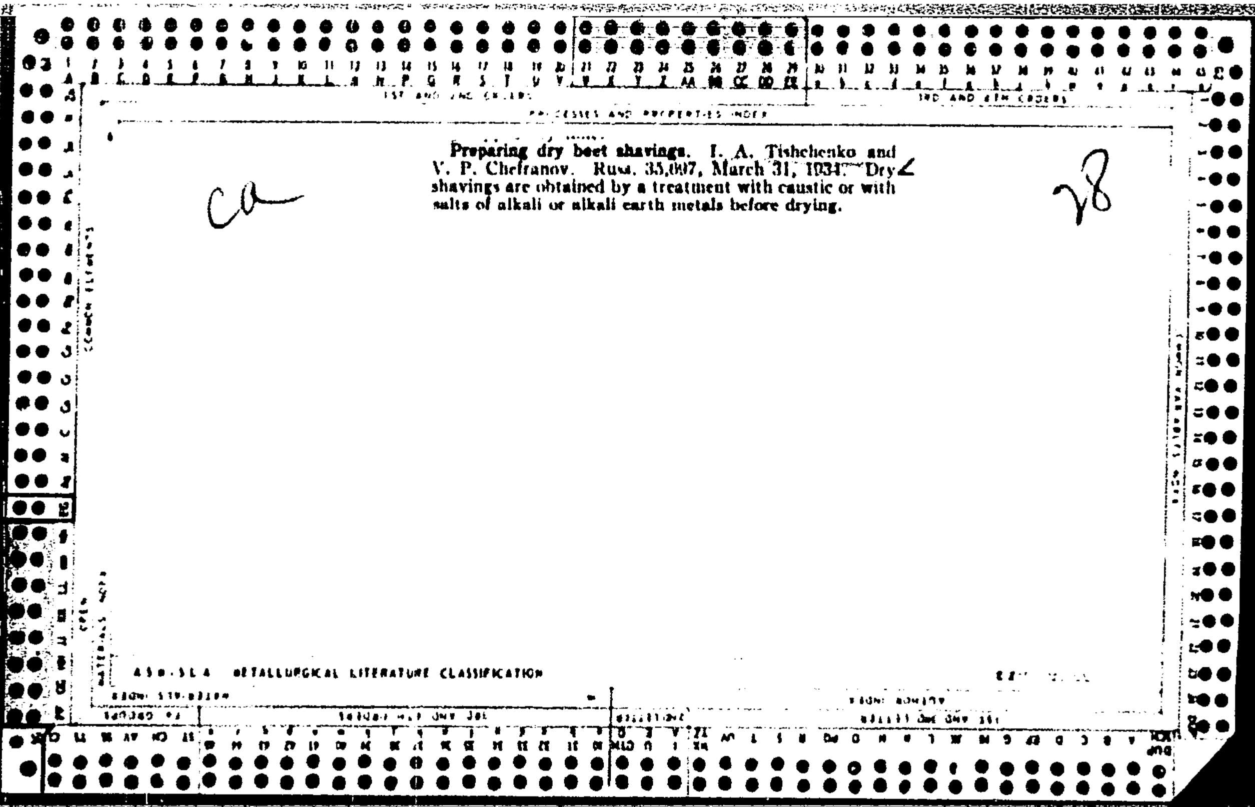

1ST AND 2ND ORDERS
PROCESSES AND PROPERTIES INDEX
3RD AND 4TH ORDERS
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION
MATERIALS INDEX
3RD AND 4TH ORDERS
AUTHOR INDEX
1ST AND 2ND LETTER

CA

28

Continuous diffusion apparatus for sugar beets. I. A. Tishchenko. U.S.S.R. 64,609, April 30, 1945.

M. H.



1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

ca

Preparing dry beet shavings. I. A. Tishchenko and V. P. Chefranov. Russ. 35,007, March 31, 1934. Dry shavings are obtained by a treatment with caustic or with salts of alkali or alkali earth metals before drying.

78

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

10

New type of terpene transformations. I. D. Tishchenko. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 20, 663-70(1950).—The known transformations of terpenes are reviewed and a parallel is drawn between their reactions and those of branched-chain olefins in general. It is suggested that reactions of terpenes with Cl involve the formation of allyl-type monochlorides with displaced double bond as well as the formation of dichlorides of the "satd." type which form as a result of a secondary reaction. The monochlorides are expected to be capable of numerous ionic reactions and of serving as useful intermediates.

G. M. Kosolapoff

10

CA

New types of terpene transformation. I. D. Tishchenko. *J. Gen. Chem. U.S.S.R.* 20, 593-601(1950)(Engl. translation). See *C.A.* 44, 7810f. R. M. S.

1907

USSR.

10062* Acetylene Derivatives. Alpha-Ketooxides and Their Conversions. **Proizvodnye atsetilena. α-ketookisi i ikh prevrashcheniia.** IV. Oxides of 2-Methyl-1,4-Hexadiene-3-one, 5-Methoxy-2-Methyl-1-Hexene-3-one and 1-Methoxy-2-Methyl-4-Hexene-3-one. **Okisi 2-metil-1,4-geksadien-3-ona, 5-metoksi-2-metil-1-geksen-3-ona i 1-metoksi-2-metil-4-geksen-3-ona.** V. Oxides of 1, 4-Hexadiene-3-one, 5-Methyl-2,5-Heptadiene-4-one and 2-Methoxy-5-Methyl-5-Heptene-4-one. **Okisi 1,4-geksadien-3-ona, 5-metil-2,5-geptadien-4-ona i 2-metoksi-5-metil-5-gepten-4-ona.** (Russian.) I. N. Nazarov, A. A. Akhrem, and I. G. Tishchenko, *Zhurnal Obshchei Khimii*, v. 25, no. 4, Apr. 1955, p. 708-734.

Includes structural formulas. 22 ref.

Inst. Org. Chem., AS USSR + Belorussian State U.

YERMOLENKO, N.F.; TISHCHENKO, I.G.; BARKAN, A.S.

Chemistry at the White Russian State University; on the fortieth anniversary of the October Revolution. Uch.zap.BGU no.42:3-29 '58. (MIRA 12:1)

(White Russia--Chemistry)

TISHCHENKO, I.G.; SKOROKHOD, O.R.; GRUCHENKOV, R.G.

Analytical characteristics of some oxyaminofuranones. Uch.zap.BGU no.42:173-188 '58. (MIRA 12:1)
(Furanones)

TISHCHENKO, I.G.

[redacted]

Action of peracetic acid on mesityl oxide. Uch.zap.BGU no.42:189-192 '58. (MIRA 12:11)

(Mesityl oxide) (Peroxyacetic acid)

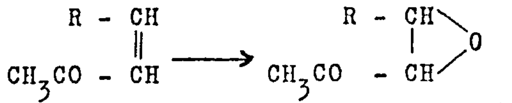
5 (3) SOV/79-29-3-14/61

AUTHORS: Tishchenko, I. G., Akhrem, A. A., Nazarov, I. N. (Deceased)

TITLE: α-Keto Oxides (α-Ketookisi). IX. Oxides of Alkylidene Acetones and Some Other α,β-Unsaturated Ketones (IX. Okisi alkilidenatsetonov i nekotorykh drugikh α,β-nepredel'nykh ketonov)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 3, pp 809-820 (USSR)

ABSTRACT: The authors carried on their earlier investigations (Refs 1-3, 5) and investigated the oxidation with alkaline hydrogen peroxide of the following compounds: ethylidene acetone (penten-2-one-4) propylidene acetone (hexen-3-one-2), trans-n-butylidene acetone (hepten-3-one-2), trans-isobutylidene acetone (5-methylhexen-3-one-2), as well as 3-methylhepten-3-one-2,1-methoxy-5-methylocten-4-one-3 and 5-methyloctadiene-1,4-one-3. It was established that in the action of alkaline hydrogen peroxide upon the alkylidene acetones (I) in methanol solution, the corresponding α-keto oxides (II-VI) form in cooling:



(I) (II-VI)

SOV/79-29-3-14/61

α-Keto Oxides. IX. Oxides of Alkylidene Acetones and Some Other α,β-Unsaturated Ketones

where in (II) $R=CH_3$ (V) $R=iso-C_3H_7$
" (III) $R=C_2H_5$ (VI) $R=iso-C_4H_9$
" (IV) $R=n.-C_3H_7$.

In the same way, compound (VIII) (Scheme 2) resulted from (VII) and compounds (XI) and (XII) (Scheme 3) from (IX) and (X). It was shown that under the influence of diluted sulphuric acid solutions, the alkylidene acetones and the oxide of 3-methylhepten-3-one-2 isomerize into the α-diketones and also hydrolize into the corresponding keto glycols. The ultraviolet absorption spectra of the oxides of ethylidene-, propylidene-, trans-n- and trans-isobutylidene-, isovalerylidene acetone and of 3-methylhepten-3-one-2 were recorded. All these acetones have one and the same absorption band at 285-290 mμ, which refers to the carbonyl group (Figs 1-2). There are 2 figures and 27 references, 12 of which are Soviet.

Card 2/3

SOV/79-29-3-14/61

α-Keto Oxides. IX. Oxides of Alkylidene Acetones and Some Other α,β-Unsaturated Ketones

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR i Belorusskiy gosudarstvennyy universitet (Institute of Organic Chemistry of the Academy of Sciences, USSR and Belorussian State University)

SUBMITTED: January 3, 1958

Card 3/3

S/580/61/000/000/007/016
A057/A126

5.3400

AUTHOR: Tishchenko, I.G.

TITLE: Oxidation of methylvinylketone and methylisopropenylketone with alkaline hydrogen peroxide

SOURCE: Yerofeyev, B.V. and Tishchenko, I.G., eds. Zhidkofaznoye okisleniye nepredel'nykh organicheskikh soyedineniy, Minsk, 1961, 73 - 83

TEXT: Oxidation of unsaturated ketones with hydrogen peroxide was investigated in continuation of earler experiments, to study reactions of the obtained products which have an increased reactivity because of the epoxy group. Methylvinylketone was oxidized in acetone solution by alkaline hydrogen peroxide in the presence of sodium bicarbonate and 3,4-epoxy-2-butanone obtained with 28% yield. The latter could not be increased by carrying out the oxidation in ether, or aqueous solution. Oxidation in aqueous solution results in a considerable polymerization and augmentation of the acid fraction. Formaldehyde was found in the oxidation product (except for reactions in aqueous solution). This indicates partial rupture of the ketone in the double bond effected by the oxidizer. Methanole cannot be used as solvent because of its addition to the ketone in the

Card 1/2

Oxidation of methylvinylketone and ....

S/580/61/000/000/007/016
A057/A126

presence of the alkaline catalyst. This phenomenon will be studied separately by the present author. 3,4-epoxy-2-butanone was isomerized to diacetyl with a 64% yield by heating in presence of small quantities of zinc chloride. This reaction could be of interest for large-scale production of diacetyl, or dimethylglyoxime, respectively, which can be prepared from diacetyl. 3-methyl-3,4-epoxy-2-butanone was prepared with a 50% yield by oxidizing methylisopropenylketone with alkaline hydrogen peroxide in methanol. The product can easily be hydrolized into 2-methyl-1,2-dioxy-butanone-3, or with diethylamine condensed by ring-opening reaction to 2-diethylamino-2-methyl-1-hydroxy-butanone-3 with 57.2% yield. Moreover, 3-methyl-3,4-epoxy-butanone-2 was converted with piperidine to 2-(N-piperidyl)-2-methyl-1-hydroxy-butanone-3 with 89.5% yield. Infrared spectra taken on an ИКС-14 (IKS-14) spectrophotometer showed that the opening of the epoxy-ring occurs at the less hydrogenated carbon atom resulting in the formation of β-hydroxy-α-aminoketones. Ultraviolet absorption spectra of the primarily prepared oxides (in alcohol) showed in the range of 200 - 400 mμ, the absorption bands 285 and 288 mμ corresponding to the carbonyl group and the 236 mμ band which belongs probably to the conjugated system of the carbonyl and epoxy group. There are 2 figures.

Card 2/2

S/580/61/000/000/008/016
A057/A126

5.3300

AUTHORS: Tishchenko, I.G.; Gurevich, M.G.

TITLE: Selective oxidation of 2-methyl-1,5-hexadiene-3-in and 3-methyl-2,6-heptadiene-4-in with peracetic acid

SOURCE: Yerofeyev, B.V. and Tishchenko, I.G., eds. Zhidkofaznoye okisleniye nepredel'nykh organicheskikh soyedineniy , Minsk, 1961, 85 - 96

TEXT: The effect of the structure of unsaturated hydrocarbons and the nature of the substituent on the oxidation with hydroperoxides was studied on two dienes which have two non-equivalent double bonds. Similar investigations were carried out by N.M. Malenok and S.D. Kul'kin. The present experiments demonstrated that in both dienes - 2-methyl-1,5-hexadiene-3-in and 3-methyl-2,6-heptadiene-4-in - by oxidation with acetyl hydroperoxide (peracetic acid), the double bond with the methyl group at the carbon atom is selectively oxidized, and two unsaturated monoxides of the vinylacetylene series are obtained: 2-methyl-1,2-epoxyhexene-5-in-3 and 3-methyl-2,3-epoxyheptene-6-in-4. The other double bond, as well as the triple bond were not oxidized, not even with a great excess of peracetic acid. The structure of the obtained oxides was proved by ultraviolet ab-

X

Card 1/3

sorption spectra. Since divinylacetylene hydrocarbons with non-symmetric structure can be easily manufactured by dehydration of vinylethynylcarbinols (according to I.N. Nazarov et al.) selective oxidation of the former could be a suitable method for the production of monoxides of the vinylacetylene series. Unsaturated aminoalcohols were prepared with a 45% yield from the obtained oxides by reaction with diethylamine. According to investigations by K.A. Krasuskiy and by F.Ya. Perveyev et al. the aminoalcohols were identified as 1-dimethylamino-2-methyl-3--hydroxyhexene-5-in-3 and 2-dimethylamino-3-methyl-3-hydroxypentene-6-in-4. These aminoalcohols are colorless liquids with an unpleasant odor, and polymerize after storage in air to glassy, reddish substances. The saturated aminoalcohols 1-dimethylamino-2-methyl-2-hydroxyhexane and 2-dimethylamino-3-methyl-3-hydroxyheptane were obtained by catalytic hydrogenation of the unsaturated aminoalcohols. Infrared spectra were taken of the last mentioned saturated aminoalcohol, and of the unsaturated monoxide 3-methyl-2,3-epoxyheptene-6-in-4 in the range 900 - 3,700 cm^{-1} on a UR-10 spectrophotometer. The spectrum of the alcohol showed absorption bands at 3,680 cm^{-1} (hydroxyl group), 1,040 cm^{-1} (C-N group), 2,876 and 2,960 cm^{-1} (symmetric and antisymmetric oscillation of CH_3 group), 2,920 cm^{-1} (antisymmetric oscillation of CH_2 group), 2,876 cm^{-1} (possibly superposed symmetric oscillations of CH_2- and CH_3-group), and 1,266 cm^{-1} (apparently effected by deformation-oscil-

Selective oxidation of ....

S/580/61/000/000/008/016
A057/A126

lations of the alcohol hydroxyl). The spectrum of the unsaturated monoxide showed, beside other bands, the absorption bands characteristic of hydroxyl groups and the epoxy ring, thus proving that the hydrogen addition occurs to the double and triple bonds, but also to the oxide ring, resulting in the formation of an alcohol and a saturated oxide, which probably could not be separated by the simple fractional distillation. There are 4 figures.

Card 3/3

X

36331
S/580/61/000/000/010/016
A057/A126

5.3700

AUTHORS: Tishchenko, I.G., Tsirlinskiy, B.V.

TITLE: Reaction of 2-ethylhexene-2-al and acrolein with alkaline hydrogen peroxide

SOURCE: Yerofeyev, B.V. and I.G. Tishchenko, eds. Zhidkofaznoye okisleniye nepredel'nykh organicheskikh soyedineniy, Minsk, 1961, 105 - 111

TEXT: The oxidation of 2-ethylhexene-2-al and acrolein with alkaline hydrogen peroxide was investigated, the reaction products were separated, characterized, and the reaction mechanism presented. The reaction between hydrogen peroxide and α-, β-unsaturated aldehydes is of interest in connection with similar studies of other authors, among them those of I.N. Nazarov et al., which investigated aliphatic α-, β-unsaturated ketones. The second purpose of the present work is to verify the results published by R. Hellmann et al. on the condensation products of acetone with butyraldehyde and problems related to similar reactions. The 2-ethylhexene-2-al was prepared by condensation of the n-butyraldehyde with acetone in alkaline medium and separated by fractional distillation, diluted in methanol, and oxidized by an excess of alkaline hydrogen peroxide

X

Card 1/2

Reaction of 2-ethylhexene-2-al

S/580/61/000/000/010/016
A057/A126

solution during 7 days. The following oxidation products were separated: 2-ethyl-2,3-epoxyhexanal (boiling point 69-70°C/14 mm, n_D^{20} 1.4310, d_4^{20} 0.9380), n-butyric acid, and 2-ethyl-2-hexenoic-1 acid (boiling point 98.5°-99°C/2mm, n_D^{20} 1.4594). The structure of the latter was determined by catalytic hydrogenation ($Pt-H_2$) resulting in α-ethylcaproic acid. Thus the oxidation of 2-ethylhexene-2-al occurs on two reactive centers with rupture of the hydrocarbon chain in the double bond. Moreover, the formation of α-ethylcaproic acid proves that 2-ethylhexene-2-al is formed by condensation of n-butyric aldehyde and acetone in alkaline medium and not the cis-heptene-3-on-2 (the problem discussed by Hellmann et al). The oxidation of acrolein in acetone medium with an excess of alkaline hydrogen peroxide and similar conditions with the above mentioned oxidation resulted in the formation of formic acid with 42.3% yield and acrolein oxide.

Card 2/2

36332
S/580/61/000/000/011/016
A057/A126

5.3400

AUTHORS: Tishchenko, I.G., Makovetskiy, M.N.

TITLE: The reaction of peracetic acid with isomeric mesityl oxide

SOURCE: Yerofeyev, B.V. and I.G. Tishchenko, eds. Zhidkofaznoye okisleniye nepredel'nykh organicheskikh soyedineniy, Minsk, 1961, 113 - 117

TEXT: The reaction between mesityl oxide and peracetic acid was investigated by the present authors in an earlier work. Kinetics of the oxidation of mesityl oxide were studied by I.V. Khvostov. It is known, however, that mesityl oxide usually contains isomesityl oxide, which differs from the normal compound in the position of the double bond. The effect of peracetic acid, oxidizing more easily the isolated double bond, on isomesityl oxide was therefore of particular interest. The separation of the isomesityl oxide was effected in the present investigation by fractional distillation, and the obtained product (boiling at 121-121.5°C/760 mm, $n_D^{20} = 1.4210$) digested in absolute alcohol with peracetic acid at 23-24°C for about 48 h. From the reaction product there was obtained the new β-keto oxide mesityl-4-methyl-4,5-epoxypentanon-2 with 52.5% yield, with the

Card 1/2